

October 2002

Safety Smarts

Next Issue:

- Emergency Response
- House Keeping

November Training:

- Confined Space – 11/7
- CPR – 11/14
- Office Safety – 11/19

Articles Page

Safety Tidbits 4

Fatal Facts 4

October 2002 Injuries

Injuries 20

Lost Time 0

Illegal Disposal

Illegal disposal is the dumping of waste material generated at one location and disposed improperly at another. Commercial and industrial businesses sometimes illegally dispose of waste in order to save money. If caught these individuals face criminal prosecution and stiff monetary fines.

However, the largest group of illegal dumpers may not be who you think they are. Household chemicals, tires, automotive fluids, yard

waste and appliances make up the largest portion of illegal dumpings.

All too often, a home auto mechanic will collect 10 to 20 gallons of waste oil. Eventually, the oil is dumped in an alleyway, through neglect or accident the oil is spilled, contaminating the soil.

Environmental impacts of illegal dumpings will vary based on the type of material disposed. Solid waste like yard clippings



or appliances do not have the environmental impact that a liquid material can have.

Illegal Disposal - continued on page 3

Clandestine Drug Labs – Illegal Disposal

Illegal drug laboratories are set up virtually anywhere. Illegal or clandestine drug labs (CDL) have been discovered in hotel and motel rooms, restaurants, private homes, apartments, storage facilities, fields, vacant buildings and (moving or stationary) vehicles. There is significant risk of

injury from chemical exposure for anyone who happens to discover waste from a CDL. The amount of danger is dependent on the concentration, quantity, time of exposure, and the route of exposure.

CDL waste is disposed of with reckless abandon in areas where the general public and especially children can discover it. Dumpers are only concerned with not getting caught. They target refuse containers, parks, bus stop trash containers and anywhere

they will not draw attention to their activities.

A methamphetamine lab can produce a minimum of 5 to 7 pounds of chemical waste for each pound of manufactured product.

Dangers associated with CDL dumps are not limited to chemical exposures. Spontaneous fires from mixing incompatible chemicals; generations of toxic gases and puncture hazards from improperly disposed needles are all real threats.

CDL - continued on page 2



"A CDL disposal site is a crime scene. Do not touch or move anything."



CDL *(Continued from page 1)*

Waste disposed from a CDL must be treated like any other illegal disposal. When dealing with unknowns, NEVER touch or open anything if you suspect it contains dangerous or chemical waste.

Opening a garbage bag you suspect is from a CDL can expose you to deadly inhalation exposures from iodine or even phosphine gas. It is always better to error on the safe side, if you are not sure what you're dealing with call for help.

Is it a Dump?

Not every garbage bag, box, or two-liter bottle is a CDL dump. CDL dumps will always have certain indicators that will tip you off. Here are a few things to look for:

- Packaging from over-the-counter ephedrine or pseudoephedrine cold pills (Sudafed).
- Empty containers from: antifreeze, white gas, ether, starting fluids, Freon, lye or drain openers, paint thinner, acetone, or

alcohol.

- Compressed gas cylinders, or camp stove (Coleman) fuel containers.
- Packaging from Epsom salts or rock salt.
- Anhydrous ammonia tanks; propane tanks or coolers containing anhydrous ammonia.
- Pyrex/glass/Corning containers or other kitchen glassware with hoses or duct tape.
- Coolers, Thermos bottles, or other cold storage containers
- Respiratory masks and filters dust masks, rubber gloves, funnels, hosing and clamps.
- Coffee filters, pillow cases or bed sheets stained red (used to filter red phosphorous), or containing a white powdery residue, or
- Apartments or buildings that smell like chemicals, including sweet, bitter, ammonia or solvent smells.

The table below provides additional information on odors generated at CDL disposal sites.

What Should You Do

A CDL disposal site is a crime scene. **Do not** touch or move anything. Move upwind and if possible uphill. If you can smell it you're too close. Get to fresh air immediately.

Once you have moved to a safe location contact your Supervisor, the Tempe Police Department (966-6211) and then notify the Environmental Division (858-2223 or 250-5334).

Remember the products found in a CDL dumpsite are a hazardous waste. This means there is the very real potential for personal injury. Avoid the urge to snoop around.

Finally, if you handle trash bags, never place bags against your body and never use your hand to push or move trash around.

For additional information on this subject contact the Household Products Collection Center (480) 858-2223.

Type of Odor	Description	Short term Effects
Ether-like	Sweet or aromatic odor often accompanied by a sweet taste. Commonly described as a "hospital odor."	Nasal irritation, nausea, headache, dizziness
Solvent-like	Sweet odor from common solvents used in paint thinners, adhesives, cleaning fluids. Types of odors often found at auto-body shops or furniture refinishing shop.	Eye, skin, and nasal irritation, nausea, dizziness, headaches
Vinegar-like	Typical pungent, acrid or sour odors found in vinegar, mayonnaise, salad dressings, or pickled food.	Eye, skin, nasal and systemic irritation
Ammonia-like	Sharp, irritating odor similar to that from wet diapers, cat urine, glass cleaners, cattle feed lots, or fertilizers.	Eye, nasal and systemic irritation

From the "The Clandestine Methamphetamine Laboratory Training Program: First Responder Operations," Governor's Office of Emergency Services, California Training Institute, Hazardous Materials Section, 1998. Exerts from Minnesota Pollution Control Agency.

Illegal Disposal *(Continued from page 1)*



Illegally disposed of liquid wastes result in costly clean ups and can threaten surface and groundwater supplies. Contaminated storm water runoff from illegal dumpsites can reach Kiwanis and Town Lake and have a negative impact on dry weather discharges into the Salt River. The results can lead to fish kills and damaged eco-systems.

Risk to Employees

Park rangers, Park Maintenance/Recreation workers, solid waste drivers, loose trash workers or any other employee who handles waste materials need to pay special attention when dealing with unusual or unknown materials.



Last year Environmental Services responded to several illegal disposal calls involving household products left in trash containers, fields or alleyways. In one incident, pool acid (sulfuric acid) containers were covered with loose trash. As crews began to remove the trash, the containers were punctured, spilling the acid onto organic material. The resulting chemical reaction produced a white cloud. The two City employees exposed to the cloud were not injured, they were lucky. The resulting clean up of debris and contaminated soil generated 450 pounds of



hazardous waste.

Another unseen danger is the improper disposal of pesticide containers, which are placed in trash containers. Toxic fumes can be generated when containers are crushed or broken in sanitation trucks. The keys to preventing exposures from illegal dumping activities are always being cautious and never becoming complacent. If it is an illegal dumpsite, get help.

Economic Impact

The cost of an injury to an employee as a result of an illegal dump can be staggering both monetarily and mentally.

Disposal costs for illegal dumps are absorbed by the City and are extremely expensive. For example, the disposal of the hazardous waste from the acid spill was \$400. One of the more frequent illegal disposal calls received is the illegal disposal of used motor oil. One oil change, less than 2-gallons can possibly generate 700 pounds of contaminated soil. This can be compounded if the dumpsite is on porous soil. These types of clean ups are labor intensive. Contaminated soil must be removed and incinerated. Disposal cost for 700-pounds of petroleum contaminated soil is \$800, which does not include equipment or man-hours.

The cost for these clean ups would more than quadruple if dumps were not cleaned up and shipped off-site by City forces. While on the surface the disposal cost seems negligible, you must remember this is just one dump.

Recently, the City of Fort Worth, Texas, reported that since 1993, more than 300,000 cubic yards of debris and 250,000 tires have been removed from roadsides and illegal dump sites throughout the city. The city currently spends approximately \$1 million annually to combat illegal dumping.

For illegal disposal sites that are left undetected, the cost become insurmountable when the contamination reaches our groundwater supply.

What to Do

When you encounter an illegal dumpsite, no matter how small, notify Field Services or Environmental Services, immediately.

If the site is determined to be commercial, a responsible party can be sought to pay for the clean up. If it occurs in a residential area, educational information will be distributed to that neighborhood.

For more information contact Field Services (480) 350-8265 or Environmental Services (480) 350-2678.

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This newsletter is intended to be a supplement to "in-house" safety training. For questions or comments concerning this publication, contact Raymond Hagen or David Tavares

Safety Tidbits

Housekeeping

Recently, during a safety audit conducted by Risk Management, several dangerous situations were discovered that was a direct result of poor housekeeping. Poor housekeeping can and does lead to some very serious injuries. Make sure that we set aside some time to keep our areas picked up and in order.

Safety Showers – Eye Washes

If you have an emergency shower or eyewash at your facility, please make sure you are checking it weekly. This will ensure that in an emergency, the water is fresh and the flow is good.

Confined Space Permits

Remember that copies of canceled confined space permits need to be submitted to the Confined Space Program Administrator for review. If you have questions, contact Scott Mosley at 480-350-8877.

Exit Signs – Emergency Lights

If you find an exit sign or emergency light that is not working in a City facility, report it immediately to Building Maintenance, 480-350-8152.

Don't Be Complacent

As we work harder and take on more tasks, do not forget your personal safety. Taking short cuts is not an option when dealing with your safety.

Storm Water Concerns

If your facility handles or stores any chemicals, fertilizers, pesticides, herbicides, pool supplies, automotive fluids, or any products that could contaminate storm water runoff, please contact the Environmental Division for assistance. (480) 350-2678.

Fatal Fact

Occupational Fatalities Investigated by ADOSH - April 1, 2002 through June 30, 2002

1. A piece of structural steel broke from its rigging, falling and knocking an employee to the ground.
2. An employee fell from the roof.
3. An employee was struck by a train car.
4. A front-end loader rolled over, killing the operator
5. Two employees were excavating at the foot of a block wall. The wall fell over crushing one employee.
6. During dismantling process, the boom of a crane collapsed, crushing an employee.
7. An employee was struck by dump truck during road construction
8. An employee was electrocuted. When he leaned against an open, energized electrical cabinet.
9. While installing roof trusses, one employee was killed when the trusses collapsed.